

**REMARKS**

Claims 24-45 are pending in this application. Claims 24-37 and 42-45 are canceled herein without prejudice or disclaimer. Claims 38-41 are amended herein for clarity and to more particularly define the invention. New claims 46-55 are added herein. Support for these amendments and new claims is found throughout the specification and in the language of the original claims. It is believed that no new matter is added by these amendments and new claims and their entry and consideration are respectfully requested. In light of these amendments, new claims and the following remarks, applicants respectfully request examination of this application on the merits.

**RESPONSE TO RESTRICTION REQUIREMENT**

The Office Action states that claims 24-45 are restricted as follows.

Group 1 (claims 24-30), drawn to methods for treating schizophrenia comprising administration of a polynucleotide fragment.

Group 2 (claims 31-37), drawn to methods for treating schizophrenia comprising administration of a polypeptide fragment.

Group 3 (claims 38-41), drawn to methods of diagnosing schizophrenia comprising detecting a gene mutation.

Group 4 (claim 42), drawn to methods for treating schizophrenia comprising administration of an antibody.

Group 5 (claims 43-44), drawn to animal models of psychiatric disorders.

Group 6 (claim 45), drawn to methods for identifying ligands for gene products.

The Office Action states that the inventions listed as Groups 1-6 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features. Specifically, it is the Examiner's view that a common technical feature among Groups 1-6 is the *PDE4B* gene and its encoded polypeptide and that such a technical feature was known in the prior art and is allegedly anticipated by GenBank GI:4505662 (1999). The Office Action further states that "'r]egarding the Further Lack of Unity requirement, the different genes and their encoded polypeptides, and the different combinations thereof, lack a common technical feature because they are composed of different sequences of nucleic acid and amino acids, and thus are structurally distinct.'" The Office Action goes on to state that the methods have distinct steps that are not coextensive with one another.

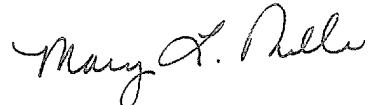
Applicants provisionally elect Group III (claims 38-41) and the gene, *GRIK4*, with traverse. The traversal is on the basis that the claims currently pending, i.e., claims 38-55, all have unity of invention in that they all share the special technical feature of a method of diagnosing schizophrenia and/or affective psychosis or susceptibility to schizophrenia and/or affective psychosis in an individual, wherein the method comprises determining if the *GRIK4* gene in the individual has been disrupted by a mutation or chromosomal rearrangement. Claim 38 is an independent claim reciting this special technical feature and claims 39-55 all depend from claim 38 and thus all share the same special technical feature. Furthermore, the genes *GRIK4*, *SEMCAP3*, *N33*, *NPAS2*, *PDE4B* and *CDH8* share the same special technical feature in that they are all genes in which a diagnosis of schizophrenia and/or affective psychosis or susceptibility to schizophrenia and/or affective psychosis can result due to the presence of a mutation or chromosomal rearrangement in these genes. Thus, the claims as presented herein are believed to have proper unity of invention and their search and examination together is respectfully requested.

The Examiner is encouraged to contact the undersigned directly if such contact will expedite the examination and allowance of the pending claims.

ATTORNEY DOCKET NO. 9013-63  
Application Serial No. 10/511,455  
Page 7 of 7

The Commissioner is authorized to charge Deposit Account No. 50-0220 in the amount of \$460.00 as fee for a two-month extension of time. This amount is believed to be correct. However, the Commissioner is authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-0220.

Respectfully submitted,



Mary L. Miller  
Registration No. 39,303

**USPTO Customer No. 20792**  
Myers Bigel Sibley & Sajovec, P.A.  
Post Office Box 37428  
Raleigh, North Carolina 27627  
Telephone: (919) 854-1400  
Facsimile: (919) 854-1401

**CERTIFICATION OF TRANSMISSION**

I hereby certify that this correspondence is being transmitted via the Office electronic filing system in accordance with 37 C.F.R. § 1.6(a)(4) to the U.S. Patent and Trademark Office on December 20, 2007.



Tracy Wallace